


APC Advancing
Public Health
Preparedness
Through
Innovation
Advanced Practice Centers

Pandemic H1N1 Influenza Planning & Response for CERTs

Public Health Department
Santa Clara Valley Health & Hospital System



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Training Agenda

- Section 1: Pandemic Influenza 101
- Section 2: Preparedness and Response for CERTs

Training Objectives

- Describe the differences of seasonal, avian and pandemic H1N1 influenza
- Identify steps how to prepare a household for pandemic influenza
- Describe the function of CERTs and potential roles during a pandemic influenza

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Explain that there are two sections in this PowerPoint training.

Section 1: Pandemic H1N1 Influenza 101



Photo: CDC

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What is a pandemic?

- A **pandemic** is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine.
- The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time. An influenza pandemic may be caused by either swine (pig) or avian (bird) flu viruses.

Phase 6 Pandemic

- On June 11th, 2009, WHO (World Health Organization), Director General, Margaret Chan declared a Phase 6 Pandemic due to sustained worldwide human-to-human transmission of the A/H1N1 flu virus.
- At that time, WHO considered the overall severity of the influenza pandemic to be moderate. This assessment was based on scientific evidence available to WHO, as well as input from its Member States on the pandemic's impact on their health systems, and their social and economic functioning.

Seasonal, Avian, and Pandemic H1N1 Influenza

- **Seasonal influenza**
 - Winter months in temperate zones; year-round activity in the tropics which can be Influenza A and/or B
- **Avian influenza**
 - Literally, “bird flu” - natural influenza A disease affecting birds
 - May occasionally or “accidentally” infect humans - not the natural host
- **Pandemic H1N1 influenza**
 - Influenza A virus
 - Novel (new) influenza strain that humans have no or little immunity against
 - Efficient human-to-human transmission
 - Widespread (global)

Influenza Symptoms

- Rapid onset of:
 - Fever (100° or greater)
 - Chills
 - Body aches
 - Sore throat
 - Non-productive cough
 - Runny nose
 - Headache
- Children may present with gastrointestinal (stomachache) symptoms



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- The symptoms of influenza include fever, chills, body aches, sore throat, non-productive cough, runny nose, and headache. The hallmark of influenza is the sudden onset of symptoms.

Avian Influenza A/(H5N1) in humans

- Mostly rural and semi-rural households with small flocks of poultry
- Few cases in commercial poultry workers, veterinarians and healthcare staff
- Most cases have been in previously healthy children & young adults
- Limited human to human spread
- Symptoms can vary from person to person, and the illness can result in death

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- H5N1 is current strain of type “A” influenza (same type that causes seasonal flu) circulating around the world.
- Can be deadly to humans
- But need direct contact with infected bird fluids/wastes to become infected

Pandemic H1N1 Influenza

- Early symptoms of H1N1 influenza include;
 - Fever (100° or greater)
 - cough
 - headache
 - muscle and joint pain
 - sore throat and runny nose
 - sometimes vomiting or diarrhea
- In 2009, according to the CDC, the average age of those hospitalized with H1N1 were 17 years old
 - The largest number of cases in people between the ages of 5 and 24
 - There are very few cases of H1N1 pandemic flu reported in people older than 64



Photo: CDC

In children, some will have vomiting and diarrhea.

There is theory that the older population might have been exposed to H1N1 at some point in their lives and have some resistance against the virus. The younger population is at most risk since this is a brand new virus they have never had exposure to.

History of Pandemics

Years	Flu	Virus	Mortality
1918-1919	"Spanish"	Type A (H1N1)	550,000 US
1957-1958	"Asian"	Type A (H2N2)	70,000 US
1968-1969	"Hong Kong"	Type A (H3N2)	34,000 US
2009-???	"Swine"	Type A (H1N1)	still counting

- In the last century we have seen four major influenza pandemics

In a severe panic *"We're On Our Own"*

- Limited or no assistance from State and Federal governments
- Disruption of transportation, business, utilities, public safety and communications
- "Social distancing" may include closing schools, and canceling public events



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- No assistance from state and local governments because personnel at all government levels will be sick as well.
- Disruption of everything- food, transportation, etc.

Influenza Antiviral Medications

- Two antivirals are currently being prescribed for H1N1: Tamiflu (oseltamivir) is a pill, while Relenza (zanamivir) is inhaled.
- Strategic National Stockpile has acquired Tamiflu, but supply will likely be inadequate in a severe pandemic.



The Health Officer may issue community-wide directives for the use of influenza antivirals in a pandemic, consistent with CDC guidelines.

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- Pharmaceutical companies are working on new antivirals and vaccines. Tamiflu is the preferred treatment to date.

Influenza Vaccine: Seasonal & H1N1

- CDC encourages the general public to get the seasonal flu vaccine.
- The H1N1 vaccine will be available in the fall of 2009 and at first will be prioritized to those who fall into the following certain risk categories:
 - Children & young adults 6 months – 24 years of age
 - Caregivers of children less than 6 months old
 - Pregnant women
 - First responders/Hospital employees (face-to-face contact with patients)
 - Individuals with certain medical conditions

(for more information see CDC)

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- Depending on CDC and HHS protocols, mass vaccination may not be appropriate during a pandemic due to the low supply of the vaccine and the need to prioritize groups to receive it when it's available.

Section 2: H1N1 Planning & Response for CERTs



Photo courtesy of the City of Santa Clara Home Emergency Assistance Teams (HEAT) Citizens' Academy program which is sponsored through a partnership between Santa Clara City Officials, Fire Department Staff, and Firefighters' Local Union #1171 for the citizens of Santa Clara, California.

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Limiting The Spread of Disease: What Individuals Can Do

Practice, Prepare, and Help Limit the Spread of Disease

- Wash your hands
- Practice good respiratory hygiene: Cover your cough and sneezes
- When sick, stay home and away from others
- Don't send sick kids to school or daycare
- Avoid close contact with people who are sick
- **Stay Healthy!**



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- Emphasize these actions will help slow the spread of the disease.

Coughing and Sneezing Safely

Cover noses and mouths when sneezing or coughing:

- Remind children and others to cover their noses and mouths with a tissue when sneezing or coughing, or to sneeze or cough into their sleeves. Put used tissues in a wastebasket, and then wash hands with soap or use an alcohol-based rub.
- Even when a person is wearing a mask, they should cough or sneeze into their sleeve.



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What Can a CERT Member Do To Prevent Exposure?

- Stay informed -listen to the news, monitor the web
- Stop germs from spreading
 - Wash your hands often, using soap & water or 60% alcohol based hand cleaner.
 - Cover your mouth and nose with tissue when coughing or sneezing, or use your sleeve.
 - Respect personal space and keep a 3 to 5 foot distance, large droplets don't generally travel more than that distance.
 - Always wash your hands for at least 20 seconds after handling a patient.
 - Stay home when you are sick, stay away from others to avoid infecting them.

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- Useful websites at the end of the presentation
- Stop germs from spreading to protect yourself, loved ones and other people

How CERTs can help in a pandemic

- Assisting with community preparedness by organizing neighborhoods to respond to a Pandemic
- Assisting staff in the Alternate Care Sites/Facilities
- Coordinating with MRC
- Assisting in maintaining Essential Services – verify they are operational
- Distributing food to those in home isolation or who are otherwise homebound
- Distributing locally developed fact sheets and resource lists in your neighborhoods
- Helping to disseminate critical information, including the availability of resources, in your area during a Pandemic

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- Identify ways you could help organize your neighborhood to prepare for a pandemic.
- Team up with your local neighborhood associations and identify ways to distribute the Pandemic Flu Pocket Guide in the community, either through door-to-door canvassing or distribution at neighborhood meetings

CERT Response Continued

- Assisting vulnerable populations
 - Elderly
 - Non-English speakers (if you speak their language)
 - Day care support
 - Special needs/disabled
 - Homeless
- Meet with your local public health agency to learn ways your CERTs can help

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- Understanding your city and neighborhood demographics will help in determining where your assistance will be most useful.

Stay Informed!

- Web Resources:
 - www.sccphd.org
 - www.pandemicflu.gov
 - www.naccho.org
 - www.cdc.gov
 - www.who.int
 - www.fda.gov
 - www.redcross.org

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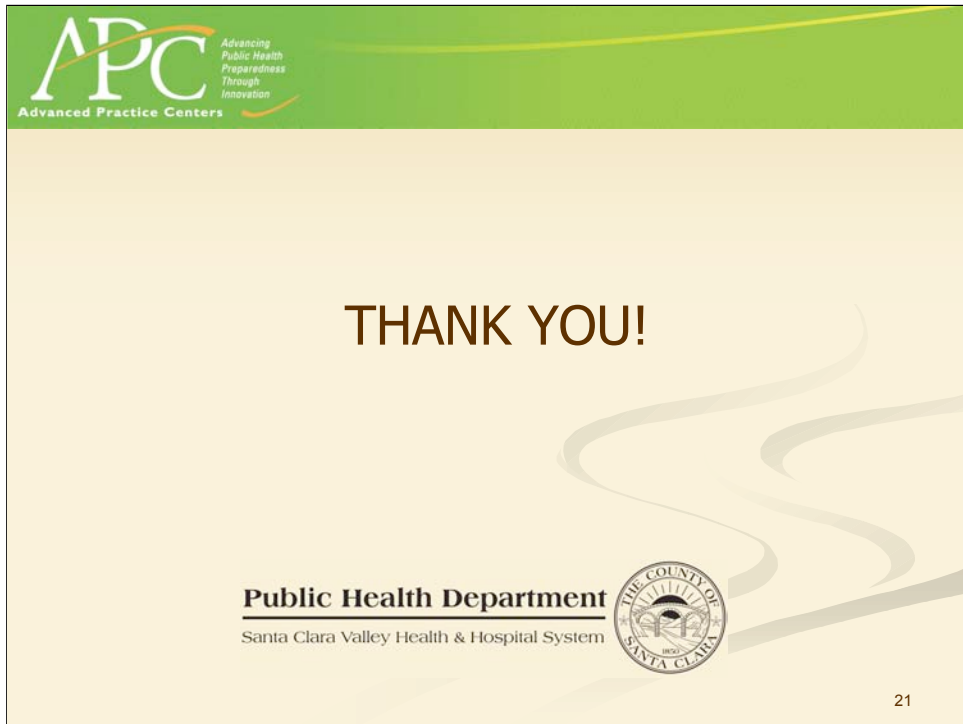
www.sccphd.org for Fact Sheets and Your Guide for Preparing for Pandemic Influenza.

www.cdc.gov for general information about pandemic flu and other health related issues.

www.cdc.gov/business for information about pandemic flu business planning.

www.fda.gov for information about personal protective equipment.

www.redcross.org for information on what you need to make an emergency preparedness plan and kit.



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